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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)

Revision of the Commission's Rules to)
Ensure Compatibility with Enhanced 911)
Emergency Calling System)

CC Docket No. 94-102

To: Chief, Wireless Telecommunications Bureau

SUSSEX CELLULAR, INC.
PETITION FOR WAIVER OF SECTIONS 20.18(e) AND (g)
OF THE COMMISSION'S RULES

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**SUSSEX CELLULAR, INC.
PETITION FOR WAIVER OF SECTIONS 20.18(e) AND (g)
OF THE COMMISSION'S RULES**

Sussex Cellular, Inc. ("Sussex"), pursuant to Section 1.3 of the Commission's rules, hereby petitions for waiver of Part 20, subsections 20.18(e) and (g), to extend the October 1, 2001 implementation deadline for Phase II E911 services. In support thereof, the following is respectfully shown:

I. BACKGROUND

Sussex, a small independent carrier with seven employees, currently provides AMPS cellular service in NJ RSA 3A, Sussex County, New Jersey. The NJ RSA 3A encompasses roughly 550 square miles of "mountainous" terrain, approximately 35 percent of which consists of unoccupied national, state or local parkland or wildlife preserve, and includes suburban-to-rural bedroom communities that have relatively low average population densities. The communities served by Sussex are dependent economically on the nearby New York MSA. The majority of the Sussex County workforce commutes daily to jobs outside Sussex's CGSA. The vast majority of cell minutes of use on Sussex's system is generated by roamers.

The average monthly volume of 911 calls of six seconds or longer duration received over the past eleven months was roughly 245. Sussex subscribers accounted for only 1.2% (less than

three per month) of these calls. Moreover, Sussex expects that the total monthly volume of 911 calls handled will decrease dramatically for several reasons. First, AT&T Wireless subscribers accounted for 64% of the 911 calls, and Sussex has been notified by AT&T Wireless that they intend on activating the portion of their E-block PCS license that serves Sussex County. This will substantially reduce the minutes of use on the Sussex system. Secondly, Sussex competes against a number of large, well-financed carriers including Verizon, AT&T Wireless, VoiceStream, Nextel and Sprint for the services of the approximately 140,000 residents of Sussex County.

II. STATUS OF 911 SERVICE AND NEED FOR WAIVER

Since 1993, Sussex has delivered all 911 calls to the New Jersey State Police Barracks at Totowa, New Jersey, situated approximately 30 miles southeast of Sussex's CGSA as requested by the authorities,^{1/} and has taken appropriate steps in a good faith effort to comply with the Commission's requirements relative to E911.

On November 9, 2000, Sussex filed its E911 Report with the Commission.^{2/} Therein, Sussex described its plans for implementing a Phase II E911 automatic location identification ("ALI") system and advised the Commission of its selection of the handset-based approach. As noted in its report, Sussex selected the handset-based solution as the only feasible approach. Given the nature of its service area and system -- 550 square miles of uneven terrain with a dispersed population currently served by only 7 cell sites -- substantial portions of Sussex's service area are reached by only a single cell site. A network-based approach generally depends

^{1/} This arrangement was implemented pursuant to the request of the State of New Jersey, Department of Law and Public Safety, Division of State Police by letter dated March 26, 1993. See, **Attachment A.**

^{2/} A copy of Sussex's E911 Report is attached as **Attachment B.**

upon the ability to “triangulate” a cell phone call which, in turn, requires that more than one cell site receive the call.

All but one of the several network solutions examined by Sussex, U.S. Wireless’ Radio Camera, would not work due to the low density of cell sites and the roughness of the terrain in Sussex’s service area. However, Sussex found that, like other network-based solutions, the Radio Camera solution was cost prohibitive. Sussex found that a network solution would require an upgrade of the entire Sussex network. While Sussex carefully considered this option, it determined that the costs of the upgrade would be several million dollars. Given the unique nature of Sussex’s subscribership and their limited use of the system for 911 calls, such cost levels are clearly prohibitive.^{3/} A network-based solution would also require construction of additional cell sites. Even setting aside the substantial investment required for a new cell site, zoning restrictions present a formidable obstacle to this solution. Thus, a network-based solution was deemed not a viable approach for Sussex.

Sussex now has no alternative but to request waiver of Section 20.18(g)(1). That section requires that carriers choosing a handset-based E911 solution begin selling and activating location-capable handsets no later than October 1, 2001, and meet subsequent sales and activation benchmarks, regardless of whether a request for Phase II service has been received from a local PSAP. However, as reflected in the numerous waiver requests already filed,^{4/}

^{3/} These extra costs could not be recovered by simply raising rates, as the *Second Report and Order* seems to contemplate. Sussex receives the vast majority of its revenue under fixed-price agreements with other carriers for handling roamer traffic. Those rates cannot be unilaterally reduced by Sussex and, indeed, those carriers are placing Sussex under tremendous pressure to accept even lower reimbursement rates. While there is no regulatory barrier to Sussex raising the rates to its own subscribers, those subscribers provide to Sussex only a small amount of Sussex’s service revenue and, moreover, an attempt to raise rates in the face of generally falling cellular service rates can be expected to result in a loss of subscribers and probably a net loss in revenue.

^{4/} Fifty-six carriers, including six national providers, have requested E911 waivers. *Telecom-munications Reports*, September 27, 2001.

sufficient E911-compliant, ALI-capable handsets are not generally available. Beyond any doubt, Sussex lacks the size and purchasing power necessary to negotiate directly with handset manufacturers for the necessary upgrades. It will only be some period of time after major carriers press manufacturers to bring these handsets to market that smaller carriers such as Sussex will be able to obtain, sell and activate handsets having location capability.

Sussex has investigated the availability of several handset-based options in the process of development and has come to the conclusion that none of those options currently being promoted can meet the requirements for Phase II E-911 service and, at the same time, be feasibly adapted to Sussex's system. In addition to looking closely at several true handset-based products, Sussex explored Airbiquity's solution featuring an add-on battery with built-in GPS capability. The handset solutions Sussex has explored would require a minimum investment in the range of \$175,000 to possibly \$250,000 for the switch software and equipment alone, far more than the small volume of home-based 911 calls received by Sussex would justify. Additional external hardware, and recurring telco services and or database subscriptions would raise the cost substantially. In addition, while Sussex has attempted to explore these areas with Ericsson and its LEC (Sprint), they have been unable to reach a consensus as to the necessary requirements. In fact, discussions with Sprint have not produced viable means to connect to a requesting PSAP for E911 service.

It is in any case likely that few, if any, of Sussex's subscribers will be willing to pay the extra cost of a ALI-equipped handset (equal roughly to the cost of a complete handset) knowing that the solution would in all likelihood not be compatible while roaming.

III. SUSSEX HAS MET THE FCC’S RULE WAIVER STANDARD, AND GRANT OF THE REQUESTED WAIVER WOULD SERVE PUBLIC INTEREST

Under the standard established in *WAIT Radio*,^{5/} waiver of an FCC rule is appropriate where it will serve the public interest and not undermine the purpose of the rule. The *WAIT Radio* standard has been codified in Section 1.925 of the Commission’s Rules which states that an entity requesting a waiver must demonstrate either that (i) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of the requested waiver would be in the public interest; or (ii) in view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative. In adopting the *Second Report and Order* in Docket No. 94-102, the Commission expressly recognized that there would be instances where the burden of providing E-911 service would be significant.^{6/} The Commission pointed to this relief mechanism in defending its E-911 scheme before the U.S. Court of Appeals, representing that waivers would be available to alleviate the burden of E-911 service for carriers who will be abnormally burdened financially.^{7/}

The Commission also has recognized that rural carriers “may face distinct challenges in implementing Phase II....” *Fifth Report*, at § 21. Considering the problems that may arise, the Commission established a waiver mechanism. Thus, the 4th MO&O requires requests for E911 waivers be “specific, focused and limited in scope, with a clear path to compliance.” Further, the Commission has stated its expectation that carriers with no solution employ a solution that best

^{5/} *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969).

^{6/} *Second Report and Order*, at 17457-8.

^{7/} *U.S. Cellular v. FCC*, Case No. 00-1072 (D.C. Cir.), FCC Brief at 429.

approximates the Phase II requirements as soon as possible.^{8/} Sussex's waiver request satisfies each of these standards and should be granted.

Granting a waiver that simply recognizes that it is not possible for Sussex to initiate Phase II service at this time would not frustrate the underlying purpose of the rule. First, as shown in this petition, and in the numerous requests of other carriers for waiver of the Phase II E911 implementation schedule now pending before the Commission, adequate location-capable handsets are not yet generally available. Second, they will become available to smaller carriers such as Sussex only some period of time after larger carriers with sufficient negotiating power are able to persuade manufacturers to bring reasonably priced and effective products to market.

Even assuming ALI-capable handsets were generally available today, initiating sales of such handsets at Sussex's single retail outlet would not serve the objectives of the Phase II rules. As noted, most usage on Sussex's network is by roamers who will, in virtually all cases, purchase their handsets from their carriers or retail outlets located back in their home markets. Very few 911 calls are received from the small pool of local subscribers who might conceivably purchase a handset from Sussex. Moreover, it cannot be expected that the majority or even a significant minority of Sussex's subscribers will spend the extra money to buy location capable handsets. Since most local subscribers are absent from the Sussex service area throughout the entire workday, it is unlikely they will be willing to pay for an ALI-capable handset that they have little need for locally. Indeed, sales of such handsets would create a false sense of security for the typical Sussex customer who commutes outside the service area and who might assume incorrectly that the mobile unit's location capability will continue to function.

^{8/} *Second Report and Order*, at 17458.

In any event, no local PSAPs have requested Phase II service from Sussex and, insofar as Sussex can determine, no local PSAP is equipped to receive E911 data. Thus, commencement of sales of ALI-capable handsets on October 1, 2001 as required by rule section 20.18(g) would be pointless. Finally, capital expenditures necessary for significant network upgrades as would be required for Phase II service at this time cannot be cost justified.

Sussex's small size, when combined with its unusual service area and high percentage of roamer traffic make its situation truly unique. All of these circumstances demonstrate that the purpose of the Commission's E911 rules will not be frustrated by a grant of the requested waiver, and that because of the "unusual factual circumstances of the instant case, application of the rule would be inequitable, unduly burdensome or contrary to the public interest, [and that Sussex] has no reasonable alternative."

In keeping with the Commission's direction that E911 waiver requests be "specific, focused and limited in scope, with a clear path to compliance," Sussex does not request an indefinite extension of the current deadline. Sussex recognizes that the E911 rules are designed to achieve important public safety objectives and wishes to implement E911 capability to the extent possible, as quickly as possible. Therefore, rather than requesting a "broad, generalized waiver," Sussex has projected a proposed schedule consistent with current market conditions, expected product availability and reasonable best efforts.

In particular, Sussex requests a waiver to allow it to begin selling and activating ALI-capable handsets by the first quarter of 2003 rather than October 1, 2001. Correspondingly, the date for the 25% benchmark would be extended to the second quarter of 2003; the date for the 50% benchmark would be extended to the fourth quarter of 2003; the date for the 100 %

benchmark would be extended to the second quarter of 2004; and the 95% benchmark for ALI handset penetration would be extended to the fourth quarter of 2006.

This schedule for implementation is more realistic, given that there are no handset solutions available to Sussex as this time and that a network solution would be cost-prohibitive. An assumption of this proposed schedule is that, as time progresses, better and more cost-effective handset solutions should be made available. Further, given the very few home subscriber 911 calls received by Sussex, the cost to public safety resulting from this proposed schedule should be minimal.

Respectfully submitted,

SUSSEX CELLULAR, INC.

By: 

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September 28, 2001

Its Attorneys

DC01/367243.3



State of New Jersey

DEPARTMENT OF LAW AND PUBLIC SAFETY DIVISION OF STATE POLICE

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ROBERT J. DEL TUFO
Attorney General

COLONEL JUSTIN J. DINTINO
Superintendent

March 26, 1993

Mr. Thomas Lynch
General Manager
Sussex Cellular
4 Union Place
Newton, NJ 07860

Dear Mr. Lynch:

With reference to your recent discussion with Captain J. Saiia, we ask that you direct all 9-1-1 cellular calls to the State Police at Totowa at this time.

A review of this setup is planned for a more appropriate routing of such calls to the Totowa PSAP (Public Safety Answering Point) once the statewide 9-1-1 network is completed.

We realize that a number of calls from your coverage area might come from New York and Pennsylvania. Our call-takers are prepared to transfer/relay such calls to the proper agencies out of state.

Your calls are to be directed to 201-890-2420 through 2424. Please target the first number in the hunt group.

Additional questions should again be directed to this Division's Communications Officer at extension 2383.

Sincerely,

Carl A. Williams

Carl A. Williams, Major
Supervisor
Emergency Management Section

JCS/el

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Federal Communications Commission

**The FCC Acknowledges Receipt of Comments From ...
Sussex Cellular, Inc.
...and Thank You for Your Comments**

Your Confirmation Number is: 2000119056554		
Date Received: Nov 9 2000		
Docket: 94-102		
Number of Pages Transmitted: 1		
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updated 07/07/00

11/9/00 4:42 PM

I. Background/Contact Information

1) Carrier Information

- a) Company Name: Sussex Cellular, Inc.
- b) TRS #: 818302
- c) Cellular Market: NJ RSA 3A

2) Contact Information

- a) Roy Benjamin, VP Engineering
 - (p) 973.388.9000 ext. 205
 - (f) 973.388.9329
 - (e-mail) roybenjamin@nac.net
- b) Joseph A. Trent, VP Marketing
 - (p) 973.388.9000 ext. 208
 - (f) 973.388.9329
 - (e-mail) joetrent@nac.net

II. E-911 Phase II Location Technology Information

1) Type of Technology

a) Technology chosen

The company has selected the handset-based solution. It is the only feasible alternative considering that we have only seven cell sites covering the RSA's roughly 520 sq. mi. of "mountainous" terrain, a large portion of which is unpopulated park lands. There are various areas that are covered by only one cell site, and therefore a network-based solution is not a viable option.

b) Vendors

We have not identified a manufacturer that has committed to having a solution available by the FCC mandated deadline. However, we believe Nokia will provide a handset solution provided there is sufficient carrier interest. Sussex Cellular operates in only one county, which has an approximate population of 140,000 and is currently served by five different carriers. We consequently cannot create sufficient demand for the phones that would warrant a manufacturer production commitment. We are somewhat relying on the belief that other carriers will also select a handset solution, thereby creating the necessary demand.

2) Testing and Verification

Sussex Cellular, Inc. will use the guidelines provided by the handset manufactures to measure the technology effectiveness. Additionally, we will use a real-world tests to determine if the technology meets Phase II requirements.

3) Implementation Details and Schedule

Sussex Cellular, Inc will make the handsets available at its only retail location. A strict implementation schedule cannot be determined without knowledge of

availability of phones. We will make a best effort to begin selling the phones upon availability.

4) PSAP Interface

Sussex Cellular, Inc has not been contacted by a PSAP related to any E-911 issues, and as previously indicated, has not identified a vendor. Consequently, we are do not know the format that we will receive the data from the handset, nor the format that the PSAP will require. Without such information, we are unable to estimate the upgrades or modifications necessary.

5) Existing Handsets

When the handsets are available, we will notify existing customers. Normal handset replacement and customer churn will also "assist" in the integration of GPS handsets into the existing customer base.

6) Location of Non-Compatible Handsets

Sussex Cellular, Inc.'s RSA is mostly surrounded by large carriers. If possible, we will implement a solution that is compatible with their solution (if handset based). This will reduce the likely percentage of incompatible handsets in our market while also expanding the value of the handset for our subscribers. Intersystem compatibility is a concern. Providing a handset solution can create a false sense of security to subscribers that roam into areas that use incompatible location technology.

7) Other Information

Sussex Cellular, Inc has not been contacted by the PSAP related to any E-911 issues (Phase I or Phase II). In fact, we currently transport 911 calls to a PSAP outside of our RSA.

We believe that this strategy will keep us compliant with Phase II. If you have concerns, please contact us.

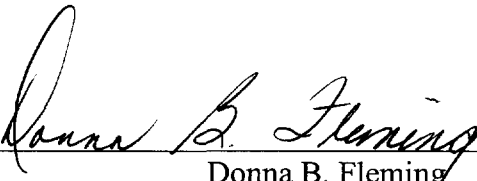
CERTIFICATE OF SERVICE

I, Donna B. Fleming, a secretary in the law firm of Gardner, Carton & Douglas, certify that I have this 28th day of September, 2001, caused to be sent via courier delivery, a copy of the foregoing **Petition for Waiver of Sections 20.18(e) and (g) of the Commission's Rules** to the following:

Thomas Sugrue, Chief
Wireless Telecommunications Bureau
Federal Communications Commission
445 – 12th Street, S.W., Room 3-C252
Washington, DC 20554

Jay Whaley
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Federal Communications Commission
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Donna B. Fleming